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Illinois Registration  
and Education Department

Bulletin of the Immigrant  
Commission no. 2.





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STATE OF ILLINOIS  
DEPARTMENT OF REGISTRATION  
AND EDUCATION

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Bulletin of the Immigrants Commission No. 2

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The Immigrant  
AND  
Coal Mining Communities  
of Illinois

GRACE ABBOTT  
Executive Secretary, Immigrants Commission

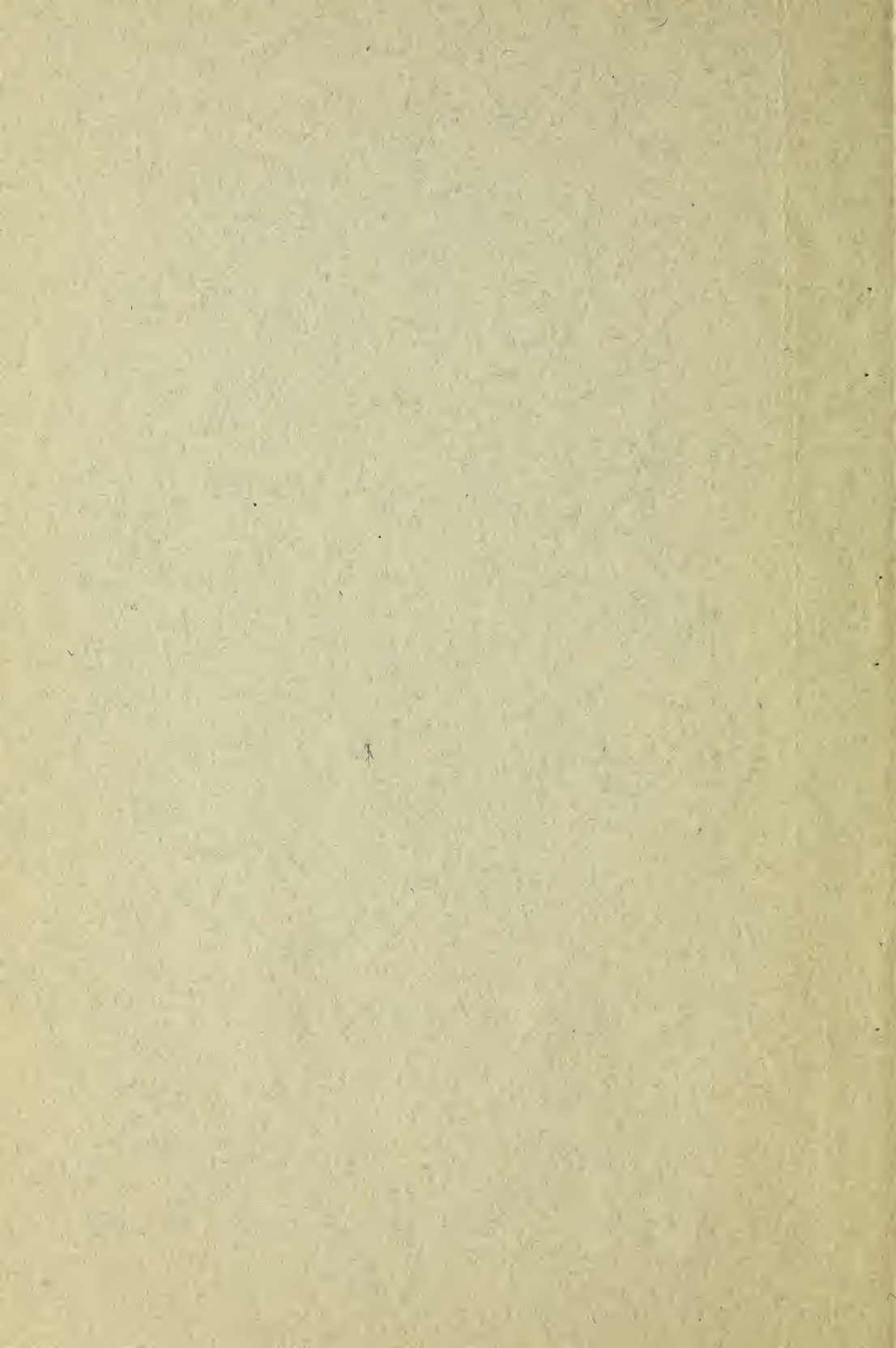


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SPRINGFIELD, ILLINOIS

1920





REMOTE BY MAIL

STATE OF ILLINOIS  
DEPARTMENT OF REGISTRATION  
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STATE OF ILLINOIS  
DEPARTMENT OF REGISTRATION AND EDUCATION  
FRANCIS W. SHEPARDSON, DIRECTOR, Springfield  
THE IMMIGRANTS' COMMISSION

FRANCIS W. SHEPARDSON, CHAIRMAN, Springfield  
ABEL DAVIS, Chicago  
CHARLES F. HARDING, Chicago  
MRS. HARLAN WARD COOLEY, Chicago  
JOHN W. FORNOF, Streator

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GRACE ABBOTT, EXECUTIVE SECRETARY,  
538 So. Dearborn St., Chicago, Illinois

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Amendment to the Civil Administrative Code Approved June 10, 1919.

"In the Department of Registration and Education:

The Immigrants' Commission composed of five members, one of whom shall be the Director, shall:

(1) Make a survey of the immigrant, alien born and foreign-speaking people of the State, and of their distribution, conditions of employment, and standards of housing and living.

(2) Examine into their economic, financial, and legal customs, their provisions for insurance and other prudential arrangements, their social organization and their educational needs; keeping in friendly and sympathetic touch with alien groups and co-operating with state and local officials and with immigrant and related authorities of other states and of the United States."

Address all communications to  
The Executive Secretary,  
Immigrants' Commission,  
538 So. Dearborn St.,  
Chicago, Illinois.



The family of a Hungarian miner.



## WHY THE STUDY WAS MADE<sup>1</sup>

The Immigrants' Commission is directed by statute to investigate the "conditions of employment and standards of housing and living," "social organizations," and "educational needs" of the foreign born in the state. The first communities in which such investigations were undertaken by the Commission were four coal-mining counties representative of the north, central, and southern fields of Illinois. There were several reasons for this choice. Although in the value of the products, agriculture and manufacturing, are more important than mining in Illinois, still in 1910 the State became the second largest coal-producing state in the United States. Pennsylvania, of course, ranked first. Since then Illinois has been surpassed only by West Virginia. These three states, Pennsylvania, West Virginia, and Illinois furnish two-thirds of the bituminous coal of the country; roughly, one-half of this comes from Pennsylvania and one-fourth each from Illinois and from West Virginia.

## CHANGES IN ILLINOIS MINING COMMUNITIES

There have been important racial changes in the history of mining in Illinois. The pioneer workers were American, English, Irish, Scotch, Welsh, German, and a few French and English Canadian. In 1890 only 7 per cent of the employees in the mines and quarries of Illinois were from non-English speaking countries other than Germany and the Scandinavian states. By 1899 about 25 per cent were from France, Italy, Russia, Austria-Hungary, and Belgium. With the opening of new fields from 1902 to 1907, and the consequent extraordinary development of coal mining in the Middle West, the number of immigrants from southern and eastern Europe in these fields increased. This was especially true of Illinois. In some of mining towns the recent immigrants displaced the older immigrants, but in many places the coming of the Italian, Lithuanian, and Russian was coincident with the opening of the new mines. At present there are mining communities in Illinois in which practically the entire population are recent immigrants from southern and eastern

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<sup>1</sup>The investigation on which this text is based was done in the main by Miss Sybil Loughead.

Europe. Poor roads and lack of other transportation facilities have resulted in an isolation of some of these communities not found in any of the industrial towns of the state.

## INDUSTRIAL AND SOCIAL IMPORTANCE OF COAL MINING

The war and the events since the war have brought to the people of every country a new sense of the dependence of our economic life and of our personal comfort upon the uninterrupted production of coal. The increased cost of living as well as the desire for a better standard of living has resulted in world-wide unrest among coal miners.

With the price controlled by the cost of production in the least productive mines, we are faced with the dilemma of impossibly low standards in many mines or with unjustifiably high profits and high prices in the more productive mines.

The shortage of supply and the high prices have brought discontent on the part of the public and the demand is general that mine operators and miners should consider the interest of the public in any policy adopted. This conflict of feeling has developed in Illinois as well as in other states and other nations. Radical solutions have been suggested from various quarters. The alien character of the population, while probably in no case the cause, is in many of these towns an added complication in the discussions. It was therefore believed that the basic facts about the population, housing, educational opportunities, and general social conditions of the immigrant population in these mining towns of Illinois should be known.

## HISTORY OF RACIAL CHANGES

The United States census does not give the nationality figures for smaller communities nor for coal miners as distinct from those employed in other mines and in quarries. The census taken by the State Mining Board in 1899 is the latest official one showing nationality in detail. A partial return from a questionnaire sent out in 1918 by the Coal Operators' Association to determine the number of the foreign born employed in the bituminous mines in Illinois shows the English to be the largest group; the Italians, Austro-Hungarians, Germans, Russians, Poles, and French follow in the order indicated.

The Italians were among the first of the recent immigrants to go into mining. As early as 1899 they were the largest foreign group—with the exception of the Germans—and there probably are now twice as many Italians as there are of any other one nationality working in the coal mines in Illinois. They had a part in the development of the northern mines as well as in the more recently opened southern ones. The Poles were next in importance to the Italians in 1899; but since that date they have not been entering the mines in great numbers, and, more than the other nationalities, they have left for industrial employment in cities and towns, so that in the mining communities they are at present surpassed in numbers by the Lithuanians as well as by the Italians.

The Lithuanians have come chiefly since 1900 and are therefore more numerous in the central and southern fields than in the northern section. They already outnumber the Italians in Springfield and in many places in the southern part of the state. The Slovaks, Slovenians, Croatians, and Serbians are also recent comers to these same districts. While there are a few in almost every community, and their total numbers are not large, they form a large part of the population in individual places. Thus Zeigler has a large per cent of Croatians and Servians; Thayer is largely Slovak; Divernon chiefly Magyar; while Springfield and Auburn have good-sized colonies of Slovenians and French respectively.

#### FOUR COUNTIES SELECTED AS BASIS OF THE STUDY

As a basis of the Commission's study, schedules were taken by agents of the Commission in 26 towns and camps in Williamson, Franklin, Bureau and Sangamon Counties. Williamson and Franklin Counties are in the newer fields in the extreme southern part of the state. They are the two most important coal-mining counties in Illinois. For the past five years about one-fourth of the coal produced and of the men employed in the mines of the State have been in these two counties. Williamson County had at least one mine thirty-seven years ago, but it produced little coal until after 1900. Since that date the mines have developed so rapidly that from 1907 to 1910, and again from 1912 to 1914, it mined more coal



than any county in the State; since 1914 it has been second only to Franklin County in coal production.<sup>1</sup>

In 1900 there were 1,440 men working in the mines of Williamson County; in 1910 there were 7,760. It now has 40 commercial mines employing 10,132 men and in addition 9 small mines supplying local trade and employing 93 more men—making a total of 10,225 miners.<sup>2</sup>

The nationality census of coal miners taken by the Illinois Mining Board in 1899 showed 1,427 miners in Williamson County, of whom 1,178 or 83 per cent were American. Of the remainder 138 were Italian, 90 British, 15 German, 5 Russian, and 1 French.<sup>3</sup> Of 3,712 foreign-born white persons in the county in 1910, 1,607 were from Italy, 573 from Russia, 144 from Austria and 17 from Hungary.<sup>4</sup> Since then the number of foreign born has steadily grown as the mines have developed. The Italians still constitute the majority of the foreign born, followed in importance by the Lithuanians. Many of the Poles have left for industrial cities and towns, and fewer have come in, so that they are far outnumbered by the Italians and Lithuanians. Practically all the other nationalities of southeastern Europe are represented in small groups.

Franklin County's population history is very much like that of Williamson County, except that its growth has been more rapid; its towns are newer and its population less settled. Because of this rapid growth it has attracted more men whose families are in Europe, more workers without ties of any kind; and there is in consequence less permanency and more movement both in and out of Franklin than Williamson County.

Like Williamson County it also has no factories and is of even less importance in agriculture. Unlike Williamson County it had no mines in the early days and had not as many as one hundred

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<sup>1</sup>Thirty-eighth Annual Coal Report of Illinois, 1919, table 35, p. 91.

<sup>2</sup>*Ibid.*, p. 264.

<sup>3</sup>Eighteenth Annual Coal Report of Illinois, 1899, table 53, p. 74.

<sup>4</sup>Thirteenth Census of the U. S., 1910. Abstract with supplement for Illinois, p. 634.

men in the mines before 1900.<sup>1</sup> The greatest development of its mines has come since 1910. Between 1907 and 1915 Franklin County passed from eighteenth to its present position as the most important mining county in the State. It now employs the most miners and produces the most coal and has the five largest mines in the State.<sup>2</sup> It has apparently not yet reached its maximum production. A new mine was opened in the summer of 1920, for which 800 miners were needed, and many of the other mines are still continuing to increase their production. In 1900 the foreign born constituted only 0.8 per cent of the population of Franklin County and in 1910, 6.7 per cent. Unlike Williamson County the Italians do not constitute a majority of the foreign born. In 1910, out of a total of 1,731 foreign born, 489 were from Italy, 456 from Russia, 233 from Austria, and 29 from Hungary. Although the total numbers have increased, the relative importance of the various national groups remains about the same. A few of the communities are largely Italian, but in most of them there is a preponderance of Lithuanians, Poles, Slovaks, and Southern Slavs.

Sangamon and Bureau, also mining counties with a large per cent of the miners from southern and eastern Europe, present striking contrasts with Williamson and Franklin Counties. Sangamon County, the third largest coal-producing county in the state, has had important mines since 1882, and its growth since that date has been slow and steady. It is an important and rich agricultural district and many of the settlements have developed from villages of retired farmers. Its villages are attractive in appearance, compared to many of the raw camps in Williamson and Franklin Counties.

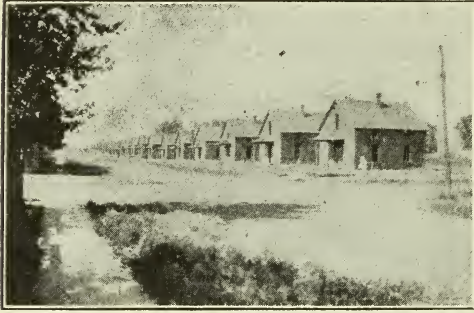
The majority of the miners of Sangamon County were English speaking in 1900. There were only 116 Poles, 69 Italians, and a few Lithuanians, Russians, and Austrians among a total of 2,500 miners. In 1900 the number of foreign born constituted 11.5 per cent and in 1910 13 per cent of the population of the County. This increase was almost entirely an increase in the numbers from southern and eastern Europe—particularly Lithuanians—who were employed in the mines.

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<sup>1</sup>Franklin County had so few miners in 1899 that it was not included in the nationality census made by the Mining Board in that year.

<sup>2</sup>Thirty-eighth Annual Coal Report of Illinois Department of Mines and Minerals, 1919, table 35.

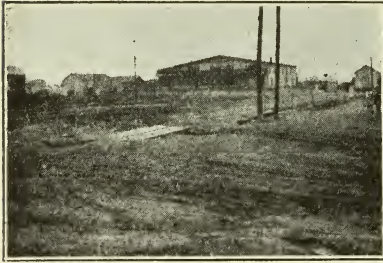
Coal production is declining in Bureau County, and instead of the problems that come with mushroom towns, it has those of the all but deserted village. In many of the towns there is discontent among those who wish to leave for more profitable fields of employment and are prevented from going because they own property which they cannot sell.



No housing shortage here. A row of 20 houses in Cherry, only 2 of which were occupied in August, 1920.



The main road to the outside world.



The Company store for three small camps, composed of about 200 company houses. In addition to the store there are a pool room, a chapel, and a post-office.



The beginnings of a new camp.

Bureau County is, however, representative of the older coal fields whose mines have been largely developed by foreign labor. As early as 1900, 21.6 per cent of its population was foreign born and by 1910 the foreign born formed 23 per cent of its total population. The four main groups were Swedish, German, Italian, and Russian—the last two being numerically much the more important. The mines are in the southeastern part of the county, and here the



foreign born have constituted a larger per cent of the population than in the county as a whole. For example, in Spring Valley only 8 per cent were native born of native parentage, and 42 per cent were of foreign birth.

Exclusive of the Lithuanians and Poles in Spring Valley the miners of Bureau County are now almost entirely Italian, with a few Slovaks and Belgians, but practically no Croatians, Serbians, Magyars, and others who are to be found in the southern and central field.

The original workers in these mines were said to be English-speaking men who came from the Braidwood field, just south of Bureau County, which gave out just as the Bureau County mines were being opened. The non-English speaking foreign born soon began to come. At first there was opposition to them on the part of the English-speaking miners and many of the latter left. By 1899 as many as 58 per cent of those reporting their nationality were from eastern and southern Europe. The Italians were among the first to come. The Coal Report of 1899 shows that even then 780 out of a total of 3,071 miners in the county were Italians.<sup>3</sup> A partial census taken by an Italian priest in Spring Valley in 1911 showed that at that time many of the Italian families had lived there twenty to twenty-five years and that there were some second and even third-generation Italians in the community.

The Poles were also early comers to Bureau County. As early as 1892 there were sufficient to support a church in Spring Valley. Their numbers have decreased since that date, but the second and third generation of the original Polish settlers still live in Bureau County.

The Lithuanians did not begin to come until later. The 1899 State Coal Report showed only 42 miners from Russia.<sup>3</sup> By 1910 immigrants from Russia constituted approximately one-seventh of the total number of foreign born in the county. The Polish and the Italians have lived in the district so long that they mingle with the American population. In contrast, the Lithuanians are said to be very clannish because they live together around their church. There have been and still are some Belgian and French and a few Slovak workers in the mines of Bureau County.

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<sup>3</sup>Eighteenth Annual Coal Report of Illinois, 1899. Table 53, p. 73.

## NUMBER AND NATIONALITY OF INDIVIDUALS FROM WHOM INFORMATION WAS SECURED

In the course of the Commission's investigation schedules were obtained in eleven towns and camps in Williamson County. This was practically every mining community which had a considerable foreign-born population. In Franklin, Bureau, and Sangamon Counties representative settlements were visited—fifteen altogether. An effort was made to secure schedules from families from southern and eastern Europe, as it is believed that they represent not only the immigration of the recent past but of the next ten years to come. There was no selection of individuals from whom schedules were taken. A house-to-house canvass was made in the district selected. Altogether 556 schedules were secured which covered 556 foreign-born men, 497 foreign-born women, and 1,642 children. The nationality of these men and women is given in the following table:

NATIONALITY OF MEN AND WOMEN IN ILLINOIS MINING TOWNS FROM WHOM  
SCHEDULES WERE SECURED

| NATIONALITY                  | Total | Men | Women |
|------------------------------|-------|-----|-------|
| Italian.....                 | 473   | 249 | 224   |
| North Italian.....           | 341   | 181 | 160   |
| South Italian.....           | 112   | 56  | 56    |
| Not specified.....           | 20    | 12  | 8     |
| Lithuanian.....              | 261   | 139 | 122   |
| Polish.....                  | 140   | 72  | 68    |
| Czecho-Slovak.....           | 48    | 26  | 22    |
| Jugo-Slav.....               | 41    | 23  | 18    |
| Magyar.....                  | 32    | 17  | 15    |
| Ruthenian and Ukrainian..... | 24    | 13  | 11    |
| French and Belgian.....      | 23    | 13  | 10    |
| All others.....              | 11    | 4   | 7     |
| Total.....                   | 1,053 | 556 | 497   |

## PREVIOUS OCCUPATIONS OF THE IMMIGRANT MINERS OF ILLINOIS

Immigration from eastern Europe has been in the main a peasant migration, so that it is not surprising to find that in the mines, as in the factories, most of the men were farm laborers or farmers before they came to the United States. The experience of 380 of the 556 men from whom schedules were secured had been limited to farming before they emigrated. Only 43 had worked in the mines in Europe. Of this number there was an interesting group of 14

Lithuanians who had first gone from the farms of Lithuania to the coal mines in the vicinity of Glasgow, Scotland, and from there had come to the United States; there were also 6 Sicilians, all of whom had worked in the sulphur mines in Villa Rosa, in Sicily;<sup>1</sup> there were 5 French miners who had worked in the coal mines of France before they emigrated; and, indicative of the movement of Italians to France and Germany, there were 3 North Italians who had previously worked in both French and German mines.

A very large per cent of all immigrants coming to the United States are destined to friends or relatives already here; and instead of attempting to begin the American experiment unaided or unadvised, they rely upon the advice or help of relatives or countrymen. The knowledge of employment opportunities that the friends or relatives have is usually confined to their own immediate environment. This explains the fact that 425 of the 556 men from whom schedules were secured had never worked at anything but mining in the United States; it also explains why those immigrants who were skilled workers in a trade for which there was no market in the particular community to which this tie of relationship or friendship led them never followed their trade here. In the course of the schedule-taking men were found working in the mines who had been millers, carpenters, bricklayers, shoemakers, tanners, blacksmiths, and clerks in their European homes. A few of them preferred mining to their old trades, but most of them had gone into the mines because they were in a mining district and they took it for granted that they could not find work at their trade. Most of them had come to a camp or a town which had grown up around a mine, and unless it was on the edge of an industrial town, mining was at least the easiest choice.

Over and over again those who had been farmers or farm laborers at home said that they worked in the mines because it was the best-paying job they could get when they came; some of them said they preferred farm work, but "it takes too much money to be a farmer here" and farm hands are not so well paid as miners.

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<sup>1</sup>This could probably not be counted as experience which in any way qualified for coal mining here. The peasants of Villa Rosa not only get out the sulphur and haul it from the mines, but they sometimes grind it in a primitive way in their homes during the winter.



## LIVING CONDITIONS

## HOUSING

In Illinois the history of a mining settlement usually begins with the driving of the shaft and the building of a number of shacks by the mining company. Company ownership of the houses, the store, and the other buildings of the town was formerly more common than at present. But there are still camps entirely owned by the company, and others in which the company has adopted the policy of selling the houses to the miners but still owns a considerable part of the town.

If the mine happens to be near a country village, farming center, or industrial town its development is influenced by the housing and other standards of the village or town. But more often it is called a "camp," is remote, and isolated; and ugliness, inconvenience, and even real hardships are the rule.

The mining towns and camps are painfully alike in appearance. The four or five-room box-like houses are built in rows, elevated from the ground on posts, without any cellar or foundation. Sometimes all the houses in a camp have front porches; sometimes porches have been provided only for the new houses; in some of the towns shingling has been used; and in some few the drab-gray paint which is almost universal has given place to green or some other color. There are frequently no trees or gardens of any sort.

For example, Bush-Hurst is a combination of two distinct settlements which are about a mile apart. Hurst is a comfortable village, built around a town square, in which not only miners but retired farmers live. With the exception of one Croatian and five Italian families the people in Hurst are Americans, and most of them own their own homes. Bush, on the other hand, is a company-owned, immigrant settlement of about two hundred houses scattered in three camps. The first houses were of the ugliest box type, the next ones to be built had porches, and for those now building stained shingles instead of clapboards are being used.

Clifford, near Herrin, in Williamson County, is another company-owned town. Here there are 216 houses of three and four rooms, all looking very much alike and painted slate colored. Each house had an outside toilet, which the company was supposed to

clean once a month, but many of them were offensively dirty, and the people complained they had not been cleaned in three months.

Zeigler, the first mining settlement in Franklin County, was started as a company town seven years ago. It now has from 3,000 to 3,500 people, about 60 per cent of whom are foreign born. Of these approximately 400 are Croatian, 100 Montenegrin, Bulgarian, Polish, and Lithuanian, respectively, and smaller numbers are Slovak and Italian. For the past two years the company has been selling the houses. It still has about 100 houses and 4 so-called "flats," which it owns and rents to the miners. These flats are barrack-like buildings, some longer than others. At the time of the



One of four "Company Flats" in Zeigler. These are barrack-like buildings varying in length. One houses 6, one 16, and another 30 foreign-born families. The picture was taken the day after clean-up day.

investigation one housed 6, one 8, one 16, and another 30 families under one roof. The toilets are all outside privies, supposedly cleaned every month by the company, but last summer they were so dirty that the Commission's investigators reported the odor in the rear of the flat buildings to be almost unbearable. In the seven years in which the camp has been in existence, no attempt had been made to clean up or remove the rubbish until in May, 1920, a clean-up day was held, at which time the mine closed and all the business stopped while a beginning was made in the removal of rubbish and filth.

NUMBER OF PERSONS IN HOUSEHOLDS FOR WHICH SCHEDULES WERE SECURED WITH  
SPECIFIED NUMBER OF ROOMS

| Number<br>of<br>Persons | NUMBER OF ROOMS |    |    |     |    |    |    |           |           | Total<br>Number<br>Households |
|-------------------------|-----------------|----|----|-----|----|----|----|-----------|-----------|-------------------------------|
|                         | 1               | 2  | 3  | 4   | 5  | 6  | 7  | 8 or more | No Report |                               |
| 1                       | ..              | 1  | 1  | 2   | .. | .. | .. | ..        | ..        | 4                             |
| 2                       | 1               | 12 | 7  | 12  | 1  | 1  | .. | ..        | ..        | 34                            |
| 3                       | ..              | 4  | 11 | 33  | 6  | 1  | 1  | ..        | ..        | 56                            |
| 4                       | ..              | 5  | 19 | 43  | 15 | 2  | 2  | 2         | ..        | 83                            |
| 5                       | ..              | 3  | 20 | 56  | 25 | 14 | 1  | 2         | ..        | 121                           |
| 6                       | ..              | 2  | 9  | 54  | 19 | 3  | 1  | ..        | 1         | 89                            |
| 7                       | ..              | 1  | 8  | 28  | 8  | 10 | 5  | 1         | ..        | 61                            |
| 8                       | ..              | .. | 4  | 18  | 6  | 7  | 1  | 1         | ..        | 37                            |
| 9                       | ..              | .. | 3  | 12  | 2  | 2  | 2  | ..        | ..        | 21                            |
| 10                      | ..              | .. | 1  | 5   | 3  | 3  | 1  | ..        | ..        | 13                            |
| 11                      | ..              | .. | .. | 4   | 1  | 5  | .. | ..        | ..        | 10                            |
| 12                      | ..              | .. | .. | ..  | .. | 2  | .. | ..        | ..        | 2                             |
| 13                      | ..              | .. | .. | ..  | .. | 2  | .. | ..        | ..        | 2                             |
| No report.              | ..              | .. | .. | 1   | .. | .. | .. | ..        | ..        | 1                             |
| Total...                | 1               | 28 | 83 | 268 | 86 | 52 | 14 | 6         | 1         | 539                           |

In some of the towns there are not enough houses to take care of the workers, and in most of them there is not sufficient variety to care properly for the families of different sizes and tastes. In Williamson and Franklin counties 185 out of the 310 families scheduled were living in four-room houses—75 families lived in fewer and only 49 in more than four rooms.

In Sangamon County 44 of the 128 families interviewed lived in four-room houses, while 34 had fewer and 44 had more than that number of rooms. In Bureau County housing conditions were better. There, out of 115 families for whom schedules were secured, 39 families lived in four-room houses, 3 in fewer, and 68 in more than that number. In 80 of the homes visited in the four counties in the course of the inquiry there were two or more persons per room; in 7 the rate was three or more persons per room.

#### THE BOARDER IN THE IMMIGRANT FAMILY

As in the immigrant neighborhood of a city the boarder is found in the mining towns, and more frequently in the mining camps. The reasons are the same in each case. There are large numbers of single men, or men whose families are in Europe, and there is seldom any plan made for housing them. There are more of these single men in the newer camps, and sometimes in these



one finds bachelor houses where the single men live together in non-family groups. But some of the single men must always find accommodations with families. They are taken in sometimes out of a kindly appreciation of this fact, and sometimes the wife does it to supplement the family income. In Bureau County, where wages are lower but there are fewer single men and more houses, only 12 per cent of the families covered by the Commission's investigation had boarders, and three-fourths of these had only one. In Sangamon County 21 per cent of the families had boarders—one-half of these had only one and one-fourth only two. In Williamson and Franklin counties 21 per cent had boarders, and more than half of these had more than one man living with the family. This practice of keeping boarders is not confined to any one nationality. Thus in the southern counties 24 per cent of the Lithuanians, 23 per cent of the South Italians, 22 per cent of the Polish, and 21 per cent of the North Italian families covered in the investigation had boarders. In one six-room house a Ruthenian family of four had eight boarders; another, in which there was only one child, had ten boarders. One Lithuanian family had three children and six boarders—eleven people in a six-room house. As in the industrial neighborhoods of the city, the practice of taking boarders exposes the family to the generally bad physical effects of overcrowding and to the even more serious social consequences which result from lack of privacy and a generally demoralized family life.

#### THE WATER SUPPLY.

None of the houses visited in the course of this study had water inside the house. In Williamson and Franklin counties securing any water at all, to say nothing of pure water, was often quite a problem. The water is frequently piped from the mines or river and is often not fit to drink. Cisterns, sometimes very dirty, are relied upon for drinking water in many of the camps. In one company-owned camp one well was used by 20 families, another by 15, another by 14, and another by 10 families. In another camp water is brought from the mines, and one faucet serves several families. It is, however, not considered good for drinking purposes, and rain water caught from the roofs is often used. In Zeigler there is usually a faucet between two houses, but the water is not only not good but gives out entirely at times. This the women in other towns complained of also and explained that when a dry season comes they "have to get water wherever they can."

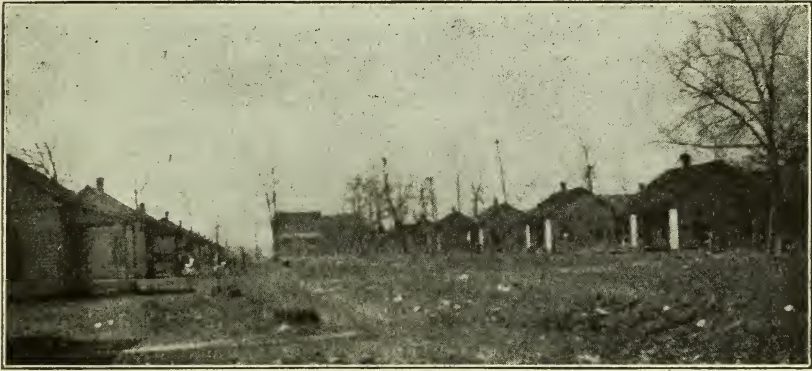
This carrying water from a distance and having an insufficient supply adds to the women's work, and it must also inevitably lower family standards of cleanliness.

These conditions may seem like temporary hardships which will soon be overcome. It should, however, be remembered that families were found who had lived in camps like these for ten or fourteen years, had come from similar or frequently worse conditions in Scotland, Pennsylvania, or West Virginia. These are the only homes many of the children are ever to know unless, as many of them in the past have done, they leave the camp for the city.

The problem of how to insure decent, comfortable homes for the miners is not easily solved. Any plan which looks beyond mere negative action, the prohibition of what is extremely bad, is much more difficult to work out for a mining than for an industrial town. The life of the mining town is more precarious, so that conditions approximating those of the construction camp are tolerated. While an individual mine may be operated only a short time, the miners move on to another place so that the conditions under which they live are by no means temporary. Whether the houses are company owned, built by a real estate company, or owned by the workers, the uncertainty as to the continuance of the mine affects the character of the building of both the homes and the town improvements. Almost no experiments have been made in the United States in state or municipal housing or in co-partnership ownership. It is hardly to be expected that, although so greatly needed, the first experiments will be made in communities in which conditions are so little stabilized as in the mining towns. Still the Miners' Union has led the way in consumers' co-operation, and it may be that some plan can be worked out for a combination company and union ownership which will eliminate the objections to company-owned houses and speculative building, and will at the same time make a much more just distribution of the losses if the operation of the mine is abandoned than under any plan by which the men own their own homes. Certainly the subject is of such importance that it deserves the most serious consideration by the State as well as by those immediately concerned.

At any rate an adequate and well-enforced State housing law would eliminate many of the most menacing of the present conditions. Experience has shown that, while such laws are easy to pass,

they frequently go unenforced. This has been due largely to the fact that throughout the United States we rely almost wholly upon local agencies for the enforcement of such laws when they are passed. It is believed that the conditions already described make it



In this camp in Williamson County there are 216 company-owned houses.



Old style colorless company houses in another Williamson County Camp. The newer houses have porches and are painted.

clear that in all the camps and many of the smaller towns this would mean no enforcement. Illinois needs State enforced housing standards below which no community can fall but which any community may raise.



## ILLITERACY AMONG THE MINERS AND THE EDUCATIONAL OPPORTUNITIES OF THE MINING TOWNS.

Attempts to show that a knowledge of English could be made a test of loyalty to American ideals or of the moral worth of the individual have always failed. So also have attempts to promote a love of the United States by disparaging the cultural, spiritual, or economic contributions of the non-English speaking nationalities. In determining the per cent in the Illinois mining towns who have not learned to read, write, or speak English, or have not become citizens, the Commission has attempted to do neither of the above. It has, however, assumed that for participation in the life of the community a knowledge of English is necessary. It is important, therefore, to both the individual and the community that it be within the range of reasonable possibility for all those who reside in the United States to learn English and become acquainted with current community problems and their historical setting. The important fact which emerged from this study was not so much the numbers who are still separated from us by language barriers but the almost complete lack of provision which had been made for the removal of that barrier.

It may be safely assumed that all foreign-born residents would like to know English. This desire is weakened by many facts. Our language must be learned by these men and women during the leisure hours that come after a long working day. This is the most important reason why the desire to learn English remains for many a mere desire. After a miner has acquired the vocabulary of his work more English is of little economic value to him, as most of the foreign born in the mining towns remain miners or miners' helpers. To become licensed miners they must work two years at the face of the mine and take an examination which is given in English. This examination is, however, a technical one and a knowledge of the working terms, together with the practical experience they have had, is said to enable them to pass it without general English vocabulary.

The men then do not need to know English either to hold a job or to get the first promotion. But, although not an economic necessity, they realize the value of a knowledge of the language of the country. They know they are handicapped at the union meetings, which are conducted in English; they know how difficult travel is

for them and how shut off they are from Americans because they do not speak our language. Even those who do not expect to remain in the United States would be glad to return with a knowledge of English. Despite the seeming acquiescence in their isolation, it may be assumed that all of them desire American contacts, and although it is the cause of many a heartache, are proud of their Americanized children. To what extent they are offered an opportunity to share in what is available for their children is the question of real importance.

In the 26 mining towns and cities covered in the investigation only four offered classes of any kind for adults last year. In three of these communities, evening classes were held in the school building and taught by day-school teachers, but the expenses of the classes were met out of a fee charged those who attended. These were men who were being coached for their naturalization examinations. In the fourth place, Springfield, there has been a regular evening school; since its legality<sup>1</sup> was questioned, the school has been kept open by contributions mainly from the Daughters of the American Revolution.

It is not surprising therefore to find, as the following table shows, that only 63 out of 556 men and 16 out of 527 women from whom schedules were secured were able to both read and write English. Forty-nine other men and 11 other women were able to read but not to write the language. A larger number, 421 men and 247 women, had learned to speak English—many of them very poorly but still sufficiently to make themselves understood at work or at the store. While only 80 of the men and 107 of the women were unable to read and write in their native language, 493 of the men and 509 of the women were illiterate from an English standpoint.

The immigrant women always have more difficulty in learning English. In some of the mining towns the feeling that a woman only needs to know how to look after the housework affects not only the learning of English by the mothers but is the cause of the girls being kept out of school at the earliest possible date, sometimes in violation of the compulsory education law. In a few places some efforts had been made to break down this prejudice. In one town, for example, the priest had organized a class for the women, but

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<sup>1</sup>See Report on Educational Needs of the Immigrants in Illinois.

although a number of them came they were said to be so timid that little progress was made.

Of the 556 men from whom education was secured, 163 had come to the United States before they were twenty-one years of age and 259 had lived in the same town in Illinois for at least ten years.

If the men are going to learn to speak English they seem to do it usually during the first five years of their residence in the United States; but with the women, whose contacts are much more gradually acquired, this is not true. Thus 92 per cent of the men scheduled who had been here five years and less than ten years had learned to speak English; while the same per cent of those who had been here twenty years and over could speak it. In the case of the women the per cent speaking English was 49 among those who had

ILLITERACY OF MEN AND WOMEN FROM WHOM SCHEDULES WERE SECURED  
DISTRIBUTED BY COUNTIES AND BY SEX.

| COUNTY          | Total | Number<br>Illiterate<br>on<br>Arrival | NUMBER ILLITERATE AT PRESENT  |                              |                                                |
|-----------------|-------|---------------------------------------|-------------------------------|------------------------------|------------------------------------------------|
|                 |       |                                       | Unable to<br>speak<br>English | Unable to<br>read<br>English | Unable to<br>both read<br>and write<br>English |
|                 |       | MEN                                   |                               |                              |                                                |
| Williamson..... | 239   | 38                                    | 54                            | 212                          | 215                                            |
| Franklin.....   | 74    | 10                                    | 13                            | 67                           | 71                                             |
| Sangamon.....   | 128   | 17                                    | 31                            | 86                           | 102                                            |
| Bureau.....     | 115   | 15                                    | 37                            | 99                           | 105                                            |
| Total.....      | 556   | 80                                    | 135                           | 464                          | 493                                            |
|                 |       | WOMEN                                 |                               |                              |                                                |
| Williamson..... | 235   | 44                                    | 140                           | 227                          | 229                                            |
| Franklin.....   | 70    | 15                                    | 33                            | 67                           | 57                                             |
| Sangamon.....   | 113   | 33                                    | 39                            | 106                          | 111                                            |
| Bureau.....     | 109   | 15                                    | 70                            | 100                          | 102                                            |
| Total.....      | 527   | 107                                   | 282                           | 500                          | 509                                            |

been here five years and less than ten and 81 per cent among those who had been here twenty years and over. Among both men and women a longer period of residence meant that a larger per cent learned to read and write English. Thus only 8 per cent of the men and 2 per cent of the women scheduled who had been here five years



and less than ten years had learned to read and write the language, while the percentages among those who had been here twenty years and more were 16 among the men and 14 among the women.

In one of the larger towns of Williamson County in which there is an unusually high per cent of Americans it seemed as though surely the educational needs could be met by the community, but school officials pointed out what seemed to them insuperable difficulties in offering opportunities for the foreign-born men and women to learn English. None of the schools were conveniently located or equipped for an adult school, there was no money to pay the teachers and it was felt the teachers ought not to be asked to volunteer their services. Of the 52 men in the town from whom information was secured only six could read and write English, seven could read but not write it, while 48 had learned to speak it; of the 49 women only 3 could read and write English and 22 had no speaking knowledge of it whatever. Ten of the men and 10 of the women were not able to read and write their native language. The superintendent of schools, who served on the Draft Committee, said that during the war 10 per cent of the drafted men could not sign their names.

#### EDUCATIONAL OPPORTUNITIES FOR CHILDREN INADEQUATE

In addition to the almost total lack of educational facilities for adults, most of the mining towns and camps of the southern counties do not offer children what we should regard as an American standard of education. The miners and the miners' wives of Williamson and Franklin Counties complained again and again of the poor schools the children attended. The cause was usually a lack of funds. The schools are largely supported by local taxation; the miners have little accumulated wealth to tax; the mines are usually located outside the school districts in which the miners and their children live, so the mines are taxed for the much smaller school population of a rural district. Some of the towns have special difficulties. For example, in Freeman, a town which is partly in Franklin and partly in Williamson County, the only school is on the edge of the settlement on the Franklin County side. This means a two miles' walk to school for many of the children. The parents complained that this was too far for the little children to go, particularly in winter and during muddy weather. The dirt road becomes almost impossible during some seasons of the year; the

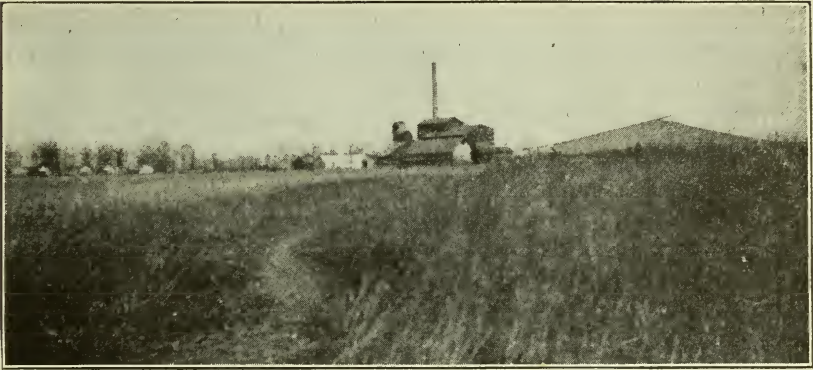
only alternative is what is regarded as a dangerous road around a mine switch. The Italians also complained that they were particularly apprehensive about the moral safety of the older girls, as the school was located in the woods and there was not proper supervision during recess. But even worse than the long walk, overcrowded classes await the Williamson County children when they reach the school. Last year there were three teachers and one of them had 105 pupils. The school term was seven months. The children, nearly all foreign born and many of them coming from non-English speaking homes, needed the most skilled teaching and a longer school year.

During the long summer months a six weeks' private school is held in one of the school buildings. The tuition is \$3.00 or \$4.00, the rate varying with the age of the children. The summer of 1920 there were usually about forty children in the school, which was taught by two inexperienced eighth-grade graduates. One of the teachers complained that "it was impossible for the boys to learn much, because they entered school late and usually left before they had learned to read and write to any extent."

In one of the company-owned towns one teacher in a primary grade had ninety-one pupils. In such towns there were, of course, no classes for adults and no prospect of any until school conditions for the children were improved.

The school situation in Bureau County is much better than in Williamson and Franklin Counties. Mines and valuable farm lands are usually inside the school districts in which the mining towns are located. The children stay in school longer. In the township high school at Spring Valley many of the pupils are from foreign families and investigators were told of some ten Italians and Lithuanians who have gone on to college. There were no classes for adults last year in the county, but there have been some in the past. The foreign born themselves frequently show considerable impatience with those who have not learned English, saying they could have picked it up if they had wanted to. While a large per cent of the men knew English, the women were as isolated in Bureau as in the other counties. Forty-five of 109 could speak no English; only 2 had learned to read and write it (one of these was a girl who came when she was eleven years of age but had never been to school in the United States). One of the 45 who could not speak English was

American born, had returned to Italy when she was eight years of age and had come back to the United States when she was sixteen.



A mine near a Williamson County Camp.

It is not to be expected that under present conditions in Williamson and Franklin Counties English will be the language in the home of the immigrant families. Because the women are almost as isolated in Sangamon, in spite of a longer residence, this is also true of that county. In only 27 of the 128 homes in which schedules were taken in Sangamon County was English the language of the home. In Bureau County, where the immigrants are older settlers, English as well as a foreign language is spoken in 44 out of the 115 homes covered in the investigation.

This means increased difficulty in the teaching of the children, which there is at present no preparation for meeting.<sup>1</sup> Short terms, overcrowded rooms, poorly enforced truancy laws, lack of recreational facilities, all make the problem of the education of the miners' children a serious one. The immigrant parents appreciate this fact; the amounts they are spending in proportion to their wealth indicates greater sacrifice for education on their part than in communities in which the same tax rate provides excellent schools, so that apparently help must come from other sources.

In its Report on the "*Educational Needs of Immigrants in Illinois*," the Commission has recommended that (1) communities shall be required to maintain day or evening classes for persons who are unable to read, write, and speak English and who are over the age of compulsory full-time attendance at day school, (2) that all

persons under 21 years of age who are unable to meet the educational requirements for work permits under the State Child-Labor Law shall be required to attend day or evening classes, (3) that special work in behalf of the immigrant women shall be undertaken, (4) that the State should adopt a training program for teachers of immigrant classes, (5) that it shall undertake to reach the older men and women with moving pictures, lectures in their own language, etc., and (6) that both Federal and State aid should be granted local communities for the education of adult illiterates. The illiteracy and lack of educational opportunities in these mining towns and camps makes it imperative that this program be promptly carried out.

### NATURALIZATION

The increased consciousness of our citizenship status which came with the war extended to the mining communities of Illinois. The per cent of men interviewed in the course of the investigation who had become naturalized varies in the different counties. In Sangamon 63 per cent of these had secured their second papers; in Bureau 58 per cent, while in Williamson and Franklin Counties only 19 per cent had certificates of naturalization. In individual towns the differences were even greater. In Zeigler, although 60 per cent of the population is said to be foreign born, "you can count on your fingers the number of naturalized voters", according to a local official. In Herrin local officials estimated that about four-fifths of the fathers of the foreign-born families were voters but only 20 of the 76 interviewed by the Commission's investigators had their final papers and only 18 others had declared their intention of becoming citizens.

This difference is largely determined by the age of the settlement. The men in the northern and central fields have usually lived there much longer and many of them before 1906, when it was possible to arrange for naturalization *en masse* before an election. In these communities men belonging to the so-called newer immigration from southern and eastern Europe are not only voters but are frequently office holders in the community.

There are several reasons why a larger per cent of the men in all these counties were not citizens. Ignorance of naturalization requirements was sometimes the explanation. One man who had taken out his first papers more than seven years ago thought he was entitled



to vote because he had registered for military service. In general, however, those interviewed were found to be fairly familiar with the requirements of the law; many had experienced difficulties in meeting them.

For example, much difficulty is experienced in securing proper witnesses. In Williamson County, of 52 petitioners for naturalization at the spring term of the Naturalization Court only 17 got their papers. The judge reported that most of the applications were refused because of incompetent witnesses or were continued because the men were still classified as alien enemies. Occasionally this is due to a misunderstanding of the requirements of the law, but many of the men have moved about so frequently that it is very difficult for some of them to get citizens who have known them five years to act as witnesses. One man whose witnesses "went back on him", reported that he "tried it three times before he was finally naturalized, and had spent \$125.00."

The cost of naturalization is also a deterrent. It made some of the men who did not feel sure of their English hesitate to apply, although others philosophically remarked that "it cost a lot, but you have to expect that." Distance from the county seat often explains the cost in part. Thus in Williamson County there were no convenient trains from several of the towns. From Bush the men hire an automobile which takes them to Herrin—\$7.00 for the round trip—and they then go by trolley to Marion. It is difficult to get to the court for naturalization from Cherry, Bureau County, because there are no convenient trains. Here the estimate was that it costs a man \$30.00 to \$40.00, and as many of them know "more if the case is continued."

In some of the towns evidence was found of a desire to deny citizenship to those who took or did not take a certain position with reference to some question on which citizens were themselves much divided. Thus in one of the southern counties the Naturalization Examiner<sup>1</sup> of the United States Department of Labor believed that those who quit work during the Autumn of 1919, in defiance of the injunction granted at the request of the Attorney General, should not be considered loyal within the meaning of the naturalization law. He had examined a number of ex-soldiers, who were strikers and entitled to special consideration under the naturalization law

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<sup>1</sup>The Secretary of Labor reports that this was done on the Examiner's own responsibility and not under directions from Washington.

because of their military service; he had them make affidavits to the effect that they knew they were striking in defiance of the United States laws and because they regarded their allegiance to the Union as superior to their allegiance to the United States. These affidavits were turned in to the judge with the recommendation that their petitions should be denied. The judge found, on cross examination, that the men had not understood the affidavits they were signing, that they struck not because the Union required it but because the other men, many of whom were already citizens, were striking and because they saw no other way of improving their condition. The judge, therefore, granted their petitions if they were in other respects qualified. In a region such as this, where practically all the miners were members of the union, an episode of this sort might have prevented many from becoming citizens and have introduced new complications in a controversy already difficult.

Some of the men, particularly those who lived in a company-owned camp, felt that there is little use of their being citizens or voters. Thus one man who had lived for fourteen years in the same camp said quite hopelessly, "I never leave the camp, so why should I have papers (citizenship)?"

In view of what has already been said about the almost total lack of educational opportunities for adults in the twenty-six mining towns visited, it seems unnecessary to point out that the difficulty of acquiring English and of preparing for the examination in civics has deterred many from trying to become citizens. One man in Franklin County put it "you must know good English now," to become naturalized. In the absence of classes special assistance must be secured; "a friend," "the priest," "a union official," (one who was interviewed was taking a correspondence course) had helped most of them to acquire sufficient English to pass the examination. In Franklin County the judge spoke of the larger per cent of those who came up for examination who were able to pass during the war when classes, since abandoned, were organized for the men in many of the towns.

Special concern was expressed in Sangamon County about the women who were widows and who must become citizens in order to hold their mothers' pensions. Almost a third of the women interviewed in Sangamon County were illiterate on arrival and have not learned to read and write here. For such women preparation for

the citizenship tests is a very serious undertaking. In Springfield the court has adopted the custom of requiring that the women begin the study of English before the pension is granted. If they have no one to help them learn, but are willing to try, some one is secured to help them. In the isolated camps and smaller towns it is almost impossible to secure such assistance.

In the Report on the *Educational Needs of the Immigrant* this problem of the non-English speaking mother has been discussed in greater detail. It is one which exists in industrial as well as mining towns. Experiments as to methods of teaching and ways of meeting and breaking down the isolation of the women are greatly needed.

### THE PROFITS OF THE MINER

Before the war the wage scale for the mines was negotiated by the mine operators and the Union. During the war the Fuel Administration was an important factor in these negotiations. Since the Armistice there has been much public discussion, bitterness, and confusion in connection with rate-fixing, and a long controversy as to whether agreements made for the period of the War were or were not still binding, and whether the government control should be continued. In the discussion of hours and wages there has been little appreciation on the part of the public of a most important factor in the problem. Most of the men work on a tonnage basis, so that, as for all piece work, the saying is "the miner is paid what he earns." His own skill is, however, not the only factor in his earnings. In the United States as a whole the annual and the daily output of coal per underground worker is greater than in any country in the world, notwithstanding the fact that the working year is usually shorter here than in other countries.<sup>1</sup> Whether the coal bed is faulty, whether the seam is thin or deep, whether machinery can be and is used, the general mine equipment, the car supply, and the accident rate are among the factors that determine what the worker can earn. These factors, with the same wage scale, produce the greatest inequalities in payment from mine to mine and field to field. They are, however, factors which the miner knows, and he is able to forecast what his earnings will be if he has the

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<sup>1</sup>*Monthly Labor Review*, Vol. XI, No. 3 (September, 1920), p. 118. Reprint of U. S. Bureau of Mines Report of Investigations, Serial No. 2145.

opportunity to work. What he does not know is how many days of work he will have. This is true in Illinois as in other mining states.

In the year ending July 1, 1919, out of 38 counties in which at least 100 men were employed in mining there were only 11 counties in which, out of a possible 308 working days, the average number of days worked was 200; in only 3 counties was the average as high as 225.<sup>1</sup>

The Annual Coal Report of Illinois does not give the wages the men receive; no pay-roll study was attempted, and the men in most cases do not know accurately what their yearly earnings are. The men usually do know pretty accurately what their highest and lowest pay checks have been. This question was asked those who were interviewed in the course of the investigation. In Bureau County, out of 96 men from whom schedules were secured, only 18 said they had ever received as much as \$80.00 (payments are made every two weeks), and not one of them had had as much as \$90.00. For some the maximum pay check was \$60.00 and \$65.00. The minimum sometimes ran as low as \$5.00, \$10.00, and \$12.00. In Bureau County the men who were paid on the day basis were considered the best paid, while in the richer southern fields exactly the reverse was true. The range of payment in Franklin and Williamson counties was much higher.

In the southern counties one man reported a check of \$156.00 for two weeks' work. He is a shot firer, a Lithuanian, who was 36 years of age when he came to the United States; has been here ten years, and has lived eight years in this town. His lowest pay check was \$3.00 in 1919. He reports his yearly earnings as \$2,400. The man has a wife and four children, owns his own home, and has a cow and chickens. He still hopes to be able to farm.

Some other concrete examples are:

A Russian Pole, was 37 years old when he came to the United States, and has lived for seven years in the town in which he was interviewed. His maximum pay check was \$92.00 for two weeks' work in 1919, the lowest \$12.00. His wife reports that their bills at the company store are usually \$40.00 to \$45.00 and that he often draws very little in cash. He has four children, and he has saved enough to buy an automobile.

<sup>1</sup>Thirty-eighth Annual Coal Report of Illinois, Table 35. In the four counties covered in this investigation the average number of days worked was as follows: Bureau 206, Franklin 202, Sangamon 225, and Williamson 183.



A Ruthenian, has lived eighteen years in the United States, eight years in Illinois, and four years in the camp in which he now lives. His highest check in 1919 was \$60.00. He reports that he earned about \$900.00 that year. He has a wife and three children, the oldest eight years of age. He has one boarder, who pays \$7.50 a week. The wife says they "spend everything they earn for food." They trade at the Union store when they have money. They can get credit at the Ruthenian grocery store when work is slack.

A Croatian, was 36 years of age on arrival in the United States and six years in Illinois. His highest pay check in 1919 was \$48.00, and his lowest \$8.00. He usually gets from \$30.00 to \$40.00. He estimates his annual earnings at \$900.00. He has six children; the two oldest are employed in the mine on a \$3.00 a day rate. His wife says that they spend about \$35.00 every two weeks for food and that they are always in debt.

A Croatian, was thirty-six years of age on arrival in the United States and came to the town in which he now lives fourteen years ago. During 1919 his highest pay check was \$80.00 for two weeks' work. Often his pay check was as low as \$10.00 or \$15.00. His wife reports that it costs about \$30.00 every two weeks for food. There are seven children, the oldest 11 years of age. He belongs to a Croatian benevolent society.

In Sangamon County work was as a whole more regular than in Williamson or Franklin counties. Still, in the individual mines, there is much irregularity. One man whose highest pay check was \$145.00 had a total yearly income of \$1,776.00. Another who was 36 years of age on arrival, has been twenty years in the United States and thirteen in Springfield, had received a maximum pay check of \$110.00 and a minimum one of \$8.00 in 1919. He thinks his average has been about \$40.00. He has seven children, the oldest 9 years of age.

This irregularity of work not only means that the yearly income is far below what the rates of pay would lead the public to expect, but it means that a wise expenditure of what they do receive is impossible. A budget system cannot be planned on this uncertain outlook. As one discouraged mother said, "You put it in the bank today and have to draw it out next pay day." Alternating between a large check and a very small one and credit usually means foolish expenditures when the pay is exceptionally good and depri-

vation when the pay envelope is slim. The accidents which are almost the common lot of the miner complicate very greatly this problem of making both ends meet.

### THE HAZARDS OF THE MINER

There had been no great mining disasters in Illinois before the Cherry Fire, when 259 men were killed, and there has been none since that time. There have been only two mining disasters in the United States resulting in a greater number of fatalities. Cherry is to Illinois a warning of the kind of tragedy that may, but we believe never will, occur again. However, every year there are some fatal accidents and a very much larger number of non-fatal ones. Falling slate, rock and coal; gas, powder and shot explosions; trolley wires, mine cars and locomotives; falling down shafts and other accidents take their yearly toll of men.

The rate of men killed for every 1,000 employed in the mines of Illinois<sup>1</sup> was 2.43 in 1914; 1.80 in 1915; 1.69 in 1916 and 2.77 in both 1917 and 1918. Of the 208 fatal accidents in 1919, 116 of the men were American born and 92 foreign born.<sup>2</sup> The non-fatal accidents are, of course, much more frequent. In the State 138,811 days were lost during the year ending July 1, 1919, by 2,515 men who were injured and returned to work.<sup>3</sup> In Williamson County alone there were 323 men during that year who were so seriously injured that they lost thirty or more days of work. Altogether 18,967 days of work were lost by these men in Williamson County.<sup>3</sup> In Franklin County, during the year 1919, one man out of every thirty-two employed in the mines was injured so that he lost at least thirty days of work and the time lost through injuries of this magnitude amounted to 29,784 days.<sup>4</sup> The actual loss of time would be shown to be much greater if the minor injuries which require men to stay at home a few days or a few weeks were included.

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<sup>1</sup>These figures are open to the general criticism which can be made against most accident figures in the United States. As they do not take into consideration the number of hours the men are employed the accident exposure rate cannot be determined.

<sup>2</sup>Of this number 23 were Italian, 15 were Lithuanian, 12 Austrian, 7 Scotch, 5 German, 5 Russian and the remaining were representatives of eleven other nationalities. Thirty-eighth Annual Coal Report of Illinois, 1919. Table 24, p. 80.

<sup>3</sup>*Ibid.*, Table 29, p. 86.

<sup>4</sup>These figures do not include time lost by twenty men in Williamson and two men in Franklin Counties who had not returned to work at the end of the year.

The Compensation Law has made payment for injuries much more certain and so has reduced the family suffering which used to be incident to a miner's accident. Still half-pay means real privation and even this is not always collected. The Miners' Union maintains a legal department, which looks after the men's cases, but still unfair settlements are sometimes accepted through ignorance or to avoid the delay of an appeal to the Industrial Board.

#### THE MINER'S WIDOW

In case of an injury resulting in death, the law allows the widow and children four times half the man's annual earnings, providing this in no case amounts to less than \$1,650 or more than \$4,000. Insurance is carried by many of the men, usually little more than enough to defray their funeral expenses, the union pays a death benefit, and a collection is often taken locally. The large number whose husbands die of "flu", pneumonia, or other non-industrial diseases have only the union benefit, the insurance if there is any and the collection made by friends larger in such cases than when the death is caused by an industrial accident. When these resources are exhausted, the widow in southern Illinois must look abroad for relief. Everyone who has done relief work in Chicago has encountered these widows of miners who have been helped with transportation to the city. They come from southern Illinois, from West Virginia, or Pennsylvania to Chicago because they cannot possibly live in the community on which, under the theory of our law, they should be a charge. In the smaller mining towns or camps only one or two women can support themselves washing and taking boarders, so these opportunities, wretched at best, are soon exhausted. In some mining districts an overall or box factory has been established on the theory that it can utilize for its labor supply the miners' daughters and the boys who are too young for the mines, but these come only to a good-sized or older settlement. In most cases there is only the mine in which employment of the women, the girls and the boys under sixteen years of age is prohibited by law.

In theory, we have, as a state, made provisions for the widows through our Mothers' Pension Law. But this is another example of a state law dependent entirely upon the local action for its effectiveness. Both Williamson and Franklin Counties give Mothers' Pensions usually to about forty-five women in amounts varying from

\$5.00 to \$12.00 a month. What can the mother do under these circumstances but move to some other county? When she arrives in Chicago she probably needs help at once. This is usually provided by her country people for a short time and then she is directed to the relief agencies. The county agent knowing the law about non-resident dependents and the principle on which it is founded—that every county should care for its own poor—urges her to return, offers to pay her fare back and refuses to help unless she does return. But she pays no attention because she knows what the plan he suggests means for her and her children. Helped by private agencies and friends little better off than herself, she gets work or the children get work, until she finally acquires residence and becomes eligible for public relief in Cook County.

In a mining county like Sangamon the situation is much more favorable. Springfield has, of course, its Charity Organization, Infant Welfare Society and other private charities, but outside of Springfield there are no private agencies and public relief is still inadequate. But the payments are higher than in Williamson and Franklin Counties. Last year the Mothers' Pensions ranged from \$8.00 to \$40.00 a month (only two were \$8.00 and these it was said would soon be discontinued), in Sangamon County. The usual pension is \$25.00, and there are factories where supplementary employment can usually be found inside the county.

Still as a whole the mining counties demonstrate the suffering which our theory of local relief often entails. As in education there is no sound reason that can be urged why a county in which the accident rate is high, in which much wealth is produced but little remains in the county, should bear this burden alone. So far as the state is concerned it is certainly a blind policy to continue to rely on a method of relief which obviously does not and cannot assure the widows and children the protection and care the law intends shall be given them. If work were regular and pay adequate, the miners could leave enough so that upon their death their wives and children would not become objects of either public or private charity. However, so long as relief is still necessary, it should be available for these women in their homes without the suffering now entailed in establishing residence in another county.



## CONSUMERS' COOPERATION AMONG THE MINERS

The miners of Southern Illinois have been pioneers in the recent development of the co-operative movement in the United States. Local co-operative societies were organized with the active encouragement of the State Federation of Labor about ten years ago. With the increase in the cost of living during the war the number of these stores increased. They differ very much in their history and control. Some of them are managed by Americans and relatively few of the immigrant miners belong; the meetings are conducted entirely in English and very little consideration is given in the purchase of the goods and food stuffs to the customs peculiar to the various immigrant groups. The leaders in the organization of other stores have been immigrants who have had some experience in, or have known of, the co-operative movement at home. In some of these a single nationality predominates; occasionally only those from a single province or district belong. For example, in Herrin the Lombard Society, originally organized as a benefit association by Italians from Lombardy, conducts a large store which is a combination meat market, grocery and dry goods store. While only people from Lombardy are members, others may patronize the store. It has a slaughter house of its own and a large business in the surrounding country among North Italians especially. This store forms a center for the older North Italians of the town, but the younger generation prefers American associates and American customs, so its existence in this particular form may not be permanent.

In some towns the local union opens a store, slightly undersells its competitors and the profits if any belong to the union. Agents of the Commission found that the foreign born felt very little interest in these. As they did not have individual memberships, they bought at the union store when they thought the articles were cheaper. Sometimes, after a store of this sort has been fostered by a union, it is turned into a co-operative store and individual members of the union form the co-operative society.

The question of giving credit is a difficult one for the co-operative store to meet. The miner frequently needs it because his work is irregular. The wife who keeps boarders often never gets enough ahead to pay for the groceries until she is paid by the boarders on pay day, so she must have credit.

In general it is considered safe for the co-operative store to loan a member only as much as he owns capital stock and because of his habit of relying on credit the member often finds that he cannot trade at the co-operative because he cannot get credit.

While emergencies make credit sometimes necessary, the habit of relying on credit has been encouraged in the past by the order system of the company stores. The mine employees are paid every two weeks, but two weeks' pay is usually held back by the company. The company permits the men to draw orders which the company store accepts for any amount which they have earned. This "credit" at the store is deducted from the men's pay, so that frequently when pay day comes their wages have already been spent. Sometimes where this system is not arranged for, the men in an emergency will discount their orders for cash from a foreman or fellow-worker.

Before prohibition much traffic in these orders was reported, although the union tried to discourage it; the men drew their orders and sold them at a discount sometimes of 25 per cent. In order to get money a man would sometimes purchase with an order something such as a side of bacon for which they paid as much as \$7.35 and then resell it for \$5.00 in cash. When pay day comes and the money has already been drawn, the same process must be continued.

In the camps where there are also other stores, company stores on the whole are usually the largest and the best in appearance. Some of the families complained that they were more expensive than the other stores, but so far as the agents of the Commission could discover the prices charged by the company and by private stores on the whole appeared to vary no more than retail prices frequently do in different stores. Whatever the prices charged there is usually much less dissatisfaction when the company town begins to sell its houses and permits other stores to come in. When the men must pay practically all they earn for food at the company store and rent a company house there is sure to be discontent. The co-operative, in addition to fostering much better habits of purchasing than did the company store and reducing somewhat the cost of living, is of real educational value to the active members.

### TRADE UNIONISM AMONG THE MINERS

Some indication has already been given of the part that the union—more correctly the United Mine Workers of America—plays in the life of the miner. Through it they have learned to work

together, not only to secure better wages, hours and protection against accidents, but also to maintain a hospital for their sick, to provide legal advice, to mitigate in some degree the hardships of the widows and orphans and to meet the problems of a rising cost of living by co-operative buying.

At the present time practically all the fields in Illinois are organized and as the "check off" system—deduction of dues from wages—is used, every man is a member of the union. This has not, of course, always been the case. In some of the towns the immigrants were first brought in to break a strike or when one was anticipated. This resulted in hard feeling and bitterness among the various groups. Stories are told of how the Italians were first brought to Spring Valley by a saloon-keeper more than thirty years ago and of the opposition to their being employed in the mines at that time. The English speaking miners during the course of an eight-month strike practically abandoned that field to the Italians in 1899. There are many who tell how only a few years ago a "scab" mine was opened in Franklin County and the foreigners' barracks were patrolled by sentries and a searchlight on top of the tipple swept the country round for miles at night.

These incidents do not describe the larger movement of population which has come with the development of the mines of Illinois and indeed of the Middle West. At first the Americans, Germans, Scandinavians, and the English, Irish, Scotch and Welsh came from the Pennsylvania mines. In the same way the eastern and southern Europeans came later as one field after another was opened. They were in many places the pioneers and while not so quickly identified with the Americans as the northern and western Europeans, they have had their part in the development of the trade-union organization.

The union has no program which it labels Americanization. It is, however, in many places almost the only unifying force. None of the local unions in the counties visited are organized along racial lines and practically the only places where all nationalities meet is in the mine and at the union meeting. The union theory seems to be that some way, somehow all the miners can learn English if they want to. It has already been shown that most of them learn to speak it after a fashion, but the vocabulary of many of those who do is so limited that they cannot take part in the

meetings and they lose much of what is said when a new subject is under discussion.

The union has urged naturalization. The secretary-treasurer of District 12 said at the District Convention held in Peoria in 1920, "if the U. M. W. A. is going to remain an American Institution and contend for American standards and ideals, then every member in it ought to become an American citizen. Our Government is and always will be what the people make it. If our laws are not just, then they should be changed. There are no better weapons with which to do this than free schools and the ballot. The laws of the land give us both. If a man refuses or neglects to become a citizen and a voter then he has no right to complain about the laws which govern him." These sentiments all of us would applaud, but the difficulty in most of these mining towns is that there are no free schools where the adult may learn English. Moreover, in most of the cities and towns of the state the returns from local taxation are so small, that the schools are woefully inadequate for the children, and if they had plenty of school funds, the law does not authorize its expenditure for adult education. While all this can be changed by legislation, it is at present an example of the "vicious circle."

### RACIAL FEELING

The regard with which the foreign-born miners are held by the Americans among whom they live and work differs in different communities. In general, the difference is determined by whether those of a particular nationality are newcomers or old settlers. If they are old settlers, they usually mingle freely with the Americans, and judgments with reference to them are individual—a man is liked or disliked because of individual traits and not because he is or is not an Italian, for example. But for many years after their arrival, the language barrier separates the immigrant groups from each other and from the American. In many of these mining towns the separation is intensified by an isolation which results from poor roads. Isolation usually causes suspicion and distrust, and in camps in which the frontier life of an earlier period is duplicated, may under strong feeling result in violence and serious injustice.

In many places it has already been said the mine and the miners' union are the only meeting-places of the adults, as the school is the meeting-place of the children. Although a very



large per cent of the immigrants are Catholic, they are separated in their churches. To a church with an American or Irish priest few of the non-English speaking will go; a church having a priest able to speak the language of one immigrant group the others do not usually attend. Thus a church in Herrin is almost exclusively Italian; the Poles do not go to the Lithuanian church of Benton; the Slovenians and Lithuanians have their own separate churches in Springfield; the Lithuanians, Italians, and Poles, all Roman Catholic, have their separate churches at Spring Valley; the priest of the Russian Church in Buckner, ministers almost exclusively to Russian Carpathians of that neighborhood.

This mutual exclusiveness results from superficial rather than important differences. It often, however, leads to the conclusion that differences are an evidence of superiority, so that one group feels itself greatly superior to another. In some of the Illinois camps this situation is complicated by the fact that the American miners are a rough set, inferior in most ways to the foreign born whom they contemptuously refer to as "Round Heads," "Hunkies," and "Dagoes." An unwillingness to trust the courts when one of them is an offender leads occasionally to race friction and riots.

The West Frankfort riot that occurred during the past summer, as the story first appeared in the newspapers of the state, seemed to indicate the same kind of racial antagonism which results in struggles over trivial affairs between the colored and white races. While greatly magnified in the first accounts, there have been difficulties which prepared the public to believe the worst.<sup>1</sup>

The great differences which education, industrial opportunity, and climate have created between the North and the South Italians often results in great contempt for the South Italians. In many towns in Illinois the North Italians, who were the first to come and have more American contacts, are largely responsible for the general use of the term "Black Italians" to describe the South

<sup>1</sup>In Johnston the story is told of the discharge of a South Italian miner, with some ill feeling on the part of both the manager and the man. Shortly after a shot was fired into the manager's house at night which killed his father-in-law and wounded his wife. The next day the discharged employee, who was believed to be responsible for the killing, was hung by a mob to the scale house at the railroad station in full view of a waiting passenger train. This occurred in 1915, but the people still justify it as necessary; and a mob was prepared to take the law into its hands to punish a murder which grew out of a quarrel over a dog fight last winter.

Near Willisville in 1914 an Italian, while being removed from one town to another was lynched and shot twenty times, although he was already under arrest and handcuffed at the time.

Italians. In some districts of South Italy the people have been in the habit—like Americans in the mountain districts of the South—of settling their difficulties and grievances without reference to the courts and the law. There are some representatives of both such Americans and such Italians in camps where the habits of the frontier survive.

In some of the towns, although there is a large South Italian colony, there have been no outbreaks, and no difficulties in law enforcement were reported by the authorities. However, in a community in which Americans regard a lynching as a means of teaching the foreigners a wholesome respect for law, little can be expected from the Sicilian. In such towns mob violence has occurred from time to time in the past.

### SOCIAL LIFE

In the old days some of the mining camps were said to be notorious for drinking, gambling, and general disorder. In spite of bootlegging, conditions are reported to be much improved since prohibition went into effect; but nothing has as yet been provided in the way of recreation or diversion for the men, women, or children in many of these camps.

The foreign benevolent associations furnish some social life. Although organized primarily for burial insurance, during a year they often have a social meeting, a lecture, a play, or a dance. Among the Slavs and Lithuanians these societies are usually branches of national organizations, and through them the members are kept in touch with settlements in other cities and states and with what is happening at home. Some of these own their own buildings. In West Frankfort, for example, three Lithuanian societies have collected \$1,300 and intend to buy or to build their own club house.

In some of the towns the immigrants have joined American fraternal organizations; but, because of language difficulties, they usually take very little part in the social activities of these organizations. In the smaller towns and camps, according to the women, life is dull and monotonous almost beyond endurance.

### MOVEMENT OF THE WORKERS OUT OF THE COAL FIELDS

There is a theory that much of our immigration during the ten years before the war was seasonal in character; that the Italians

particularly were frequently birds of passage, who came not to settle here but to work for a short time and then to return with such savings as they could accumulate by practicing the greatest personal self-denial. This practice has been denounced as undesirable from an American standpoint. It has also been explained as inevitable and desirable if exploitation is prevented, on the theory that the international labor market should be drawn upon not only by the United States but by all nations for seasonal and for temporary employment.

In the Illinois coal fields there has been a much smaller movement of this sort than might be expected. The foreign-born miners, although there is a considerable movement from one town to another, seem to have adopted the United States as their home.

Of the 556 men from whom schedules were secured, 246 had come directly to Illinois and have since lived continuously in the state—128 of them in the same city or town. The next largest group, 140, had come via Pennsylvania; 47 via Missouri; and the others in smaller numbers from the metal mines of Michigan, from the coal fields of Alabama and Ohio, and from 25 other states.

According to the reports of the United States Commissioner of Immigration during the decade from 1910 to 1919 there were only 3,301 alien miners from Illinois in the outgoing stream. During each of the first four years of the decade the number leaving was about 500; in 1914 it increased to 739, probably because of returning reservists. In 1919 there were 158 who went back. In the course of the investigation it was found that a considerable number especially of the Italians had been to the old home once and some twice for a visit, but they regarded the United States and Illinois as their real home. In Williamson and Franklin counties 16 per cent of the men interviewed had been back. Thirty-two per cent of the South Italians and 20 per cent of the North Italians, but only 5 per cent of the Poles and Lithuanians had returned for a visit.

From the northern coal fields there has been a steady departure as one after another the richer mines of the central and southern part of the state and industrial towns have offered larger returns to the worker. Cherry, in Bureau County, has decreased in population ever since the fire, until now the town, originally built to house 500 workers in the mines has only 362 miners. Whole rows of houses are boarded up, and the main street is grass grown. In

other parts of Bureau County men have been attracted to factory work by the higher wages. Although many who own their own homes are deterred from leaving by that fact, others have abandoned their property in order to go. In Spring Valley 200 children are reported to have left the schools last winter because their parents were moving to industrial centers—Detroit, Rockford, and Chicago apparently attracting most of them.

In Sangamon County, although there was a shortage of labor in the mines last summer, men were leaving for factory jobs. On the whole, however, there was said to be comparatively little shifting in that section.

Diminishing returns from their labor in one field or better wages in the industrial towns is the most frequent reason why the miners leave one town or camp for another or for the city. The regularity of factory work in recent years made the yearly factory wage scale higher than the miners'. Irregularity of employment in the mines has been one of the greatest drawbacks to this work.

But in addition to economic reasons many of the miners leave because they know their children will have better schools and opportunities of all sorts in a city than in a mining camp and when they are ready to go to work there will be a wider choice of employment open to them.

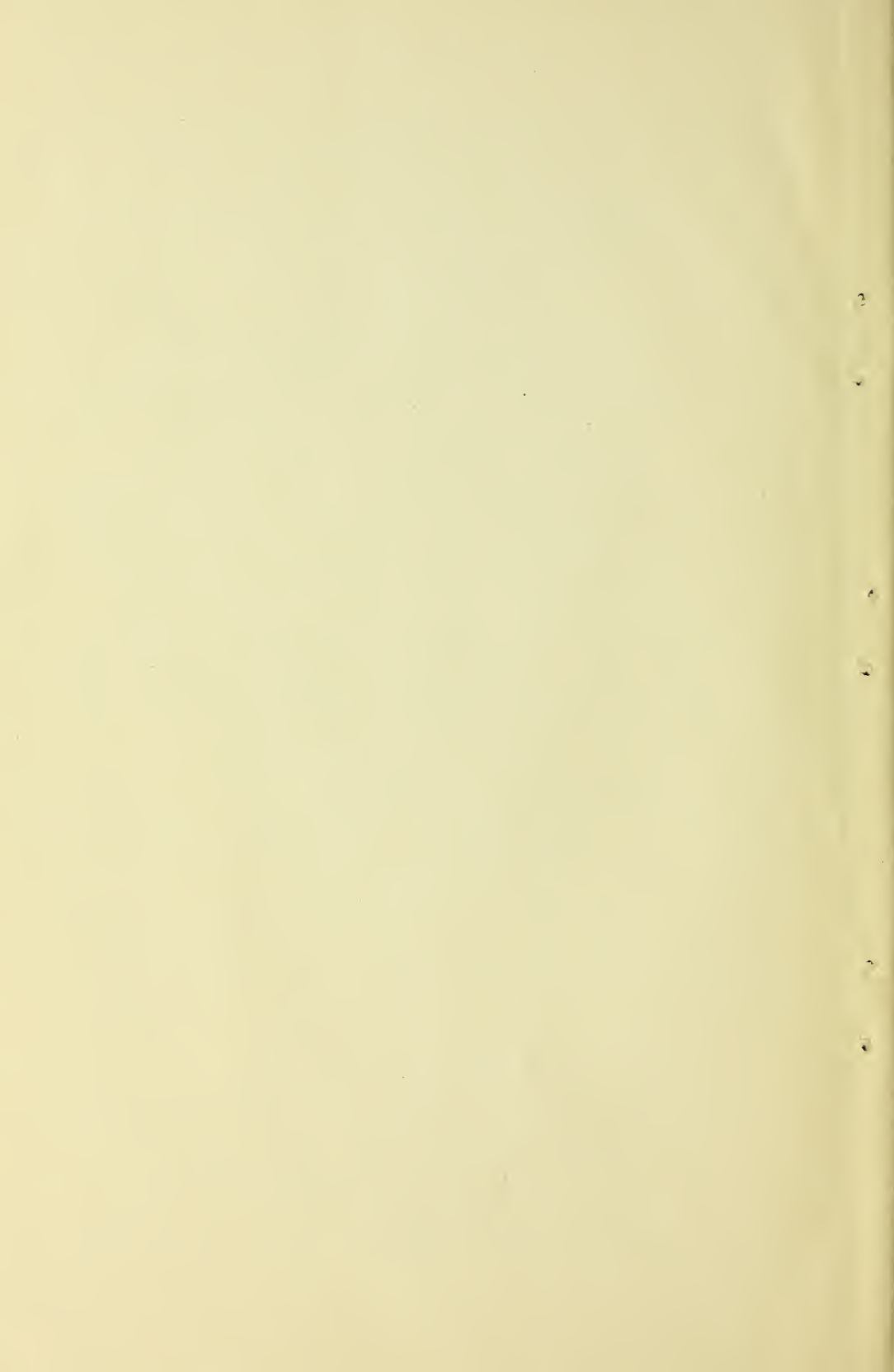
There is a saying "once a miner, always a miner," and it is certainly true that there is real attachment to the work in spite of the hazards, the fact that it means for most of them underground work, and usually fewer opportunities for themselves and their children. Some of those who leave return because they prefer the relative independence which the miner enjoys in his work. During the winter of 1919-20 some returned because of the high city rents or their inability to find any place in which to live in the industrial centers.

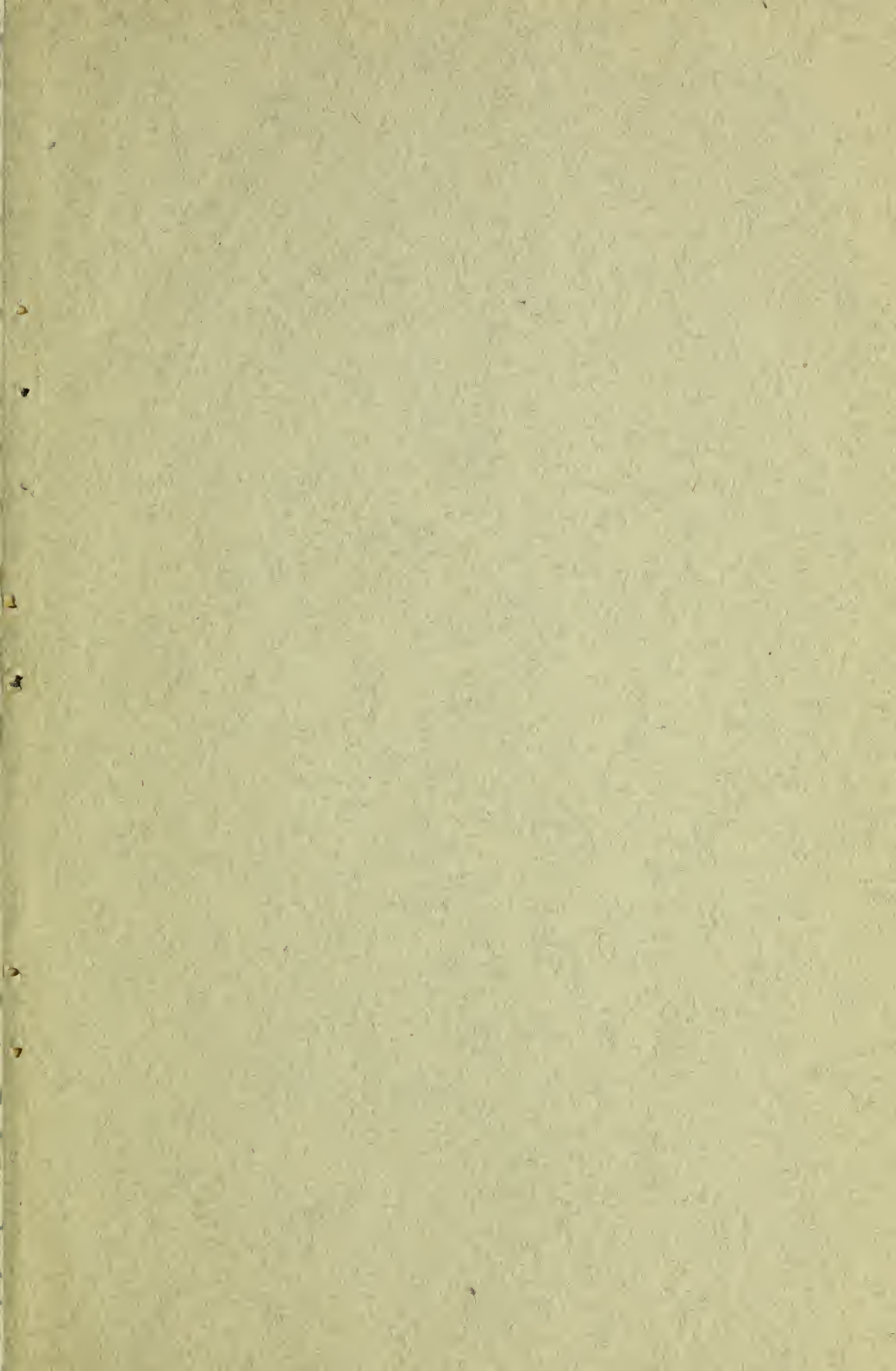
## CONCLUSION

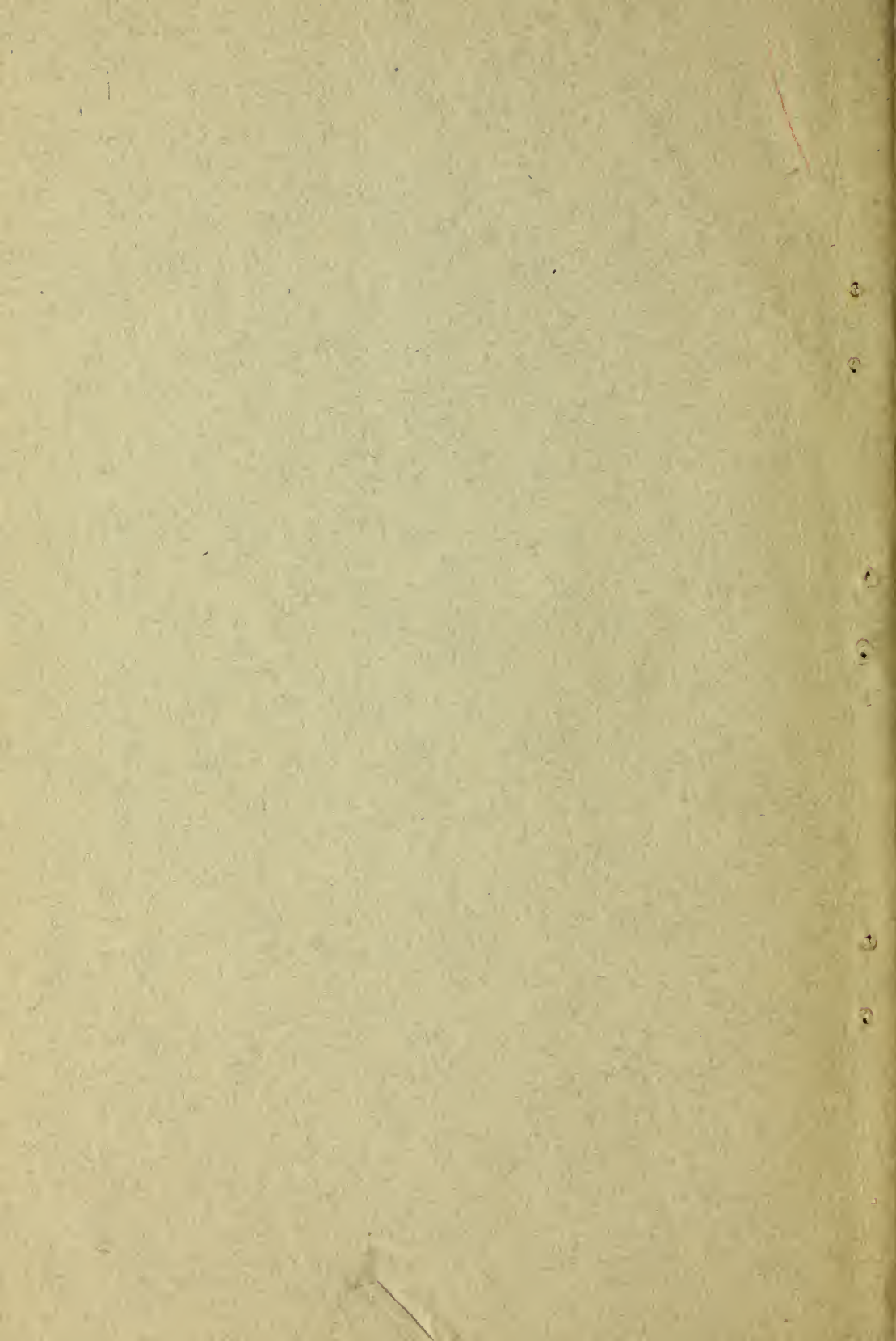
It would be a mistake if the impression of helplessness has been given as the characteristic of the immigrant miners in Illinois. Quite the reverse is the case. Mining apparently, more than industrial employment, develops independence of thought and action and individual initiative. In general these are the habits of the frontier which have so influenced the development of American life. While



we know the value to the individual of pioneering, we also know its costliness. It is peculiarly hard on the women and children, and too frequently the children of vigorous pioneering stock are physically exhausted before they begin life. The mining towns in the same sections and in different sections of the state differ from each other. In some the problems are no more serious than in the average industrial community. In a town which has a thousand people, no doctor, and only one telephone and that not available all the time, when houses are miserable makeshifts for homes, when the water supply is bad and inadequate, when the schools are overcrowded and the term short, when there is no organized recreation, life offers little to the miners and even less to their wives and their children. So far as the immediate outlook is concerned, this is not a temporary but a permanent condition. That the children do not want to enter the mines when they grow up, that the boys from these communities who saw life with the army will want at least to try for something better is to be expected. At this time, however, when there is a world shortage of coal, the Illinois mines must be worked, and some way should be found of protecting health, and of supplying better schools, more comfortable homes, and richer recreational opportunities in the mining communities of the state. The possible savings which might be made if the coal were converted into power at the mouth of the mine and by-products were adopted for commercial purposes are now being discussed by engineers. The social advantages of such a plan should not be ignored. It would bring to these districts diversity of employment and, in a large measure, make the isolated camp a thing of the past.









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PRESS BULLETIN

(For immediate release)

GEOLOGY AND OIL AND GAS POSSIBILITIES IN THE  
VICINITY OF WATERLOO, MONROE COUNTY,  
ILLINOIS

Recent work by members of the Illinois State Geological Survey in the neighborhood of Waterloo, Monroe County, has brought to light the presence of geologic conditions in that area which are favorable to the accumulation of oil and gas. The following statement on the geology of this region has been prepared in accordance with the policy of the Survey to make public all data as rapidly as they become available, for the purpose of assisting those interested in the development of the area.

Detailed studies of the surface geology show that the rocks in this vicinity have been thrown into a series of low folds trending somewhat west of north and east of south. Perhaps the most fully developed of these folds is an anticline extending from near Columbia to a little south of Waterloo, as shown on the accompanying map. From the structure symbols it is readily seen that this fold is of the asymmetrical type, with a very gentle eastward slope and a steeply inclined west limb; the fold being comparable in form, though not in magnitude, to the La Salle anticline along certain portions of its axis. Indications point to the existence of a fault bounding the upfold on the west, the fault extending south from Columbia to sec. 23, T.2 S., R. 10 W., and following roughly the M. and O. Railroad.

On account of these structural features of the Waterloo fold, it is recommended that drilling tests be restricted for the present to a belt lying along and just east of the axis. By this restriction the Survey does not mean to imply that oil is certainly present within this zone or that oil may not be found outside it. In the present state of knowledge, however, this belt appears the most favorable for careful testing.

The strata involved in the anticline are indicated in the graphic section presented with the map. A description of these formations is presented in tabulated form on the following page.

*Approximate geologic column for the Waterloo district<sup>1</sup>*

| Name                  |           | Thickness<br>Feet | Description                                                                                                                                                                                                                                                       |
|-----------------------|-----------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| St. Louis             |           | 200±              | Limestone, dense, compact, hard, and brittle, splintery fracture. Contains little chert. Is not readily distinguishable from the underlying Salem formation.                                                                                                      |
| Salem                 |           | 100±              | Limestone, gray to white, with a yellow tint in places. Notable for the absence of chert. Oolitic texture in part; partly made up of massed fragmentary fossils. May include some buff or drab dolomitic beds.                                                    |
| Warsaw                |           | 75±               | Limestones and shales intercalated. Outcrops usually show mainly limestone phase, the softer shale being concealed beneath talus or wash. <i>Spirifer</i> abundant in one stratum near top of formation.                                                          |
| Keokuk—<br>Burlington |           | 125±              | Limestone, white and pure, but with abundant chert bands irregularly sandwiched between the limestone strata. Commonly represented in outcrops by a cherty red clay which remains after the solution of the limestone. Lowest formation exposed in this locality. |
| Fern Glen             |           | 40±               | Limestone, prominently red and cherty.                                                                                                                                                                                                                            |
| Devonian              |           | 40±               | Limestone, gray; drill cuttings often cream-colored.                                                                                                                                                                                                              |
| "Trenton"             | Maquoketa | 100±              | Shale, dark gray, slightly calcareous.                                                                                                                                                                                                                            |
|                       | Kimmswick | 50±               | Limestone, like the Devonian in color, but usually granular. May show oil.                                                                                                                                                                                        |
|                       | Plattin   | 200±              | Limestone, brownish-gray, granular. Most likely oil horizon.                                                                                                                                                                                                      |

<sup>1</sup>In using the above table it should be borne in mind that the thicknesses given are merely the closest approximations now available, and that variations of considerable importance may be revealed as development proceeds.

The Kimmswick-Plattin, which is the equivalent of the so-called "Trenton" of Clark County, is the only horizon in this vicinity as yet proven to contain oil. The "Hoing" sand horizon of northwestern Illinois, which lies at the top of the Maquoketa, may or may not be represented here. It might be noted that the limestones above the Fern Glen include the horizons of the "Westfield" and "Mississippi" limes of eastern Illinois; however, lack of cover for these formations on the structure minimizes the chance of their producing oil.

By reference to the sketch map it will be seen that three formations outcrop in roughly concentric belts along the axis of the anticline. Obviously the location of a drill hole will determine in which of these formations the well will start. Thus a drill placed along the axis and south of Waterloo will begin in the Salem, pass through the Warsaw, and then into the lower formations. If placed farther north and still along the axis of the fold,

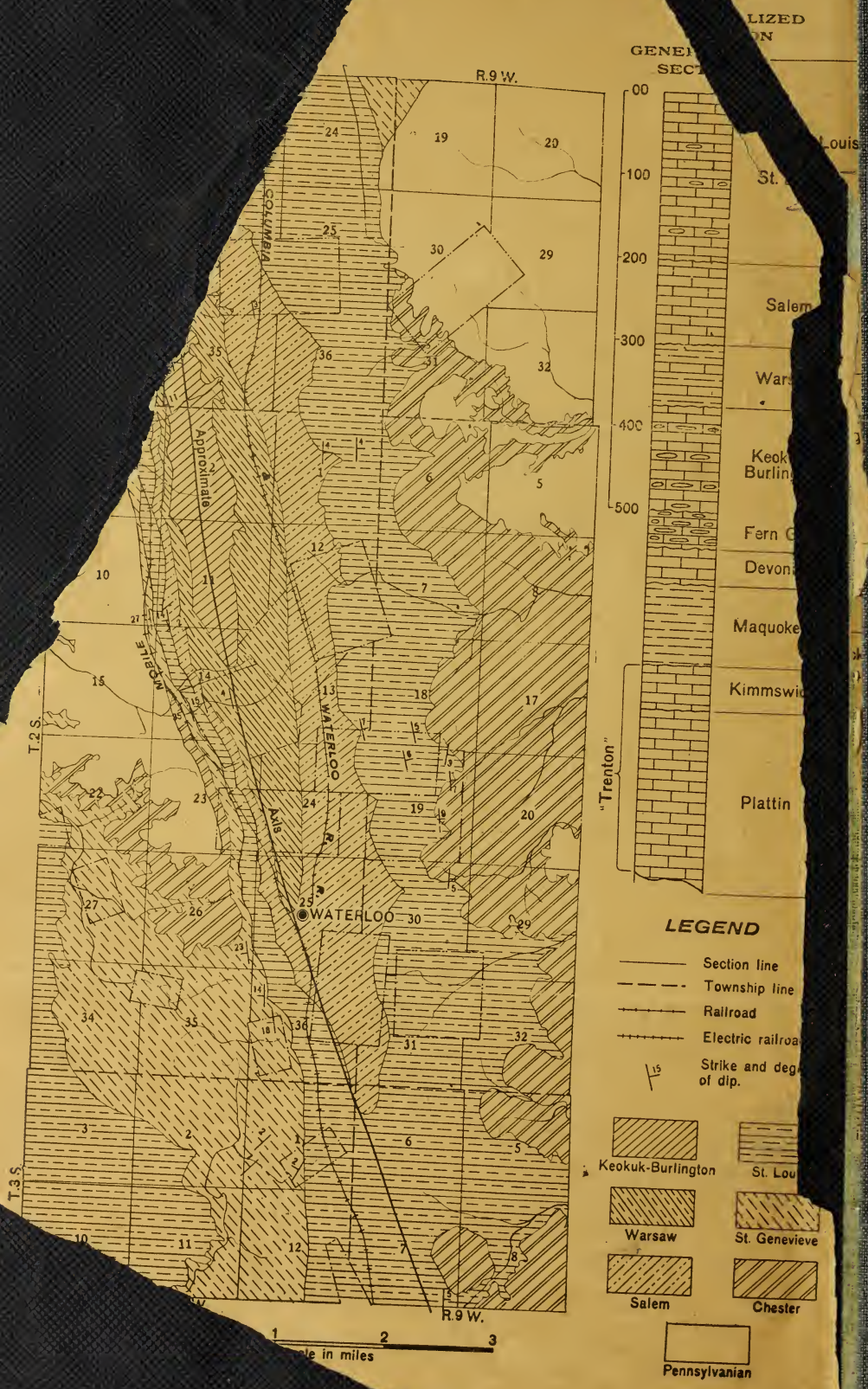
It will miss the Salem and begin in the Warsaw; strata north, entering the Keokuk-Burlington immediately below both Salem and Warsaw, and therefore have a considerably lesser thickness of strata before penetrating the Plattin. The depth to be drilled is thus seen to be dependent upon two factors—the thickness of the strata, and the location of the structure with reference to the structure and to the topography. The distinguishing marks of the various formations are as follows: the Salem limestone shows practically no chert; the Warsaw may contain shaly bands all through the formation; the Keokuk-Burlington limestone has abundant cherty bands; the Fern Glen, marking the base of the Mississippian strata, is easily recognized by its red color; the Maquoketa is a dark-gray shale which may be as much as 100 feet thick; the Kimmswick is generally light gray; and the Plattin is brownish gray.

The finding of oil in a water well in the SE.  $\frac{1}{4}$  NW.  $\frac{1}{4}$  sec. 25, T. 2 S., R. 10 W. bears out the conclusions previously reached by geologists of the Survey that this is an area worthy of scientific testing.

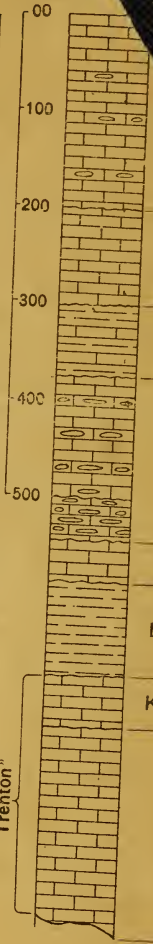
One of the three wells in this vicinity, of depth sufficient to reach the Plattin has failed to show the presence of oil. This is the water well drilled at the brewery in Waterloo, but in this case the absence of any log for the hole, together with its location somewhat off the structure, renders its negative evidence inconclusive. In this connection it is of interest to note that a show of oil was found in the Hergenroeder well about two miles east of Waterloo, in what is probably the Kimmswick formation.

The Survey is ready to cooperate with those doing development work in the area, and it will be to the advantage of all concerned to have logs of all holes drilled sent in to the Illinois State Geological Survey, Urbana. Logs are especially valuable if they are accompanied by detailed samples, and sample sacks will be sent to those signifying their willingness to cooperate to this extent.





# GENERALIZED SECTION



## LEGEND

- Section line
- Township line
- Railroad
- Electric railroad
- Strike and dip of dip.
- Keokuk-Burlington
- St. Louis
- Warsaw
- St. Genevieve
- Salem
- Chester
- Pennsylvanian



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